

Executive Summary

Lower crude oil prices and a drop in energy demand in the latter part of the year led to lower profits for major energy companies in 2001. Key developments in 2001 included:

- Lower rates of economic growth in most areas of the world: the growth rate of real Gross Domestic Product (GDP) worldwide fell from 3.9 percent in 2000 to 1.1 percent in 2001.
- Lower oil prices: on an annual basis, the world oil price declined from \$27.70 per barrel in 2000 to \$22.00 per barrel in 2001
- Declining natural gas prices: monthly U.S. natural gas prices at the wellhead declined from \$8.06 per thousand cubic feet in January 2001 to \$2.38 per thousand cubic feet in December. On an annual basis, though, the price of natural gas was up 12 percent, from \$3.69 per thousand cubic feet in 2000 to \$4.12 per thousand cubic feet in 2001.
- Attacks of September 11: the aftermath of these attacks had adverse impacts on the U.S. economy as well as the demand for petroleum products.

To see how these and other developments have affected energy industry financial and operating performance, strategies, and industry structure, the Energy Information Administration (EIA) maintains the Financial Reporting System (FRS).

Through Form EIA-28, major U.S. energy companies annually report to the FRS (see the box entitled "The FRS Companies in 2001" on page 1 in Chapter 1 of this report). The FRS companies report financial and operating information by major lines of business, including oil and gas production ("upstream"), petroleum refining and marketing ("downstream"), other energy operations, and nonenergy businesses.

Profits of Major Energy Companies Riddled by Asset Writedowns and Lower Oil Prices in 2001

Net income of the FRS companies totaled \$37.7 billion in 2001, down 29 percent from the record high net income of 2000. A large amount of asset writedowns and other unusual items had a sizable impact on reported financial results. Most of the unusual items were due to accounting rules that require that the value of oil and gas assets on a company's balance sheet be reduced when end-of-year oil and gas prices are significantly below prior-year levels, as was true at the end of 2001. Excluding unusual items, the FRS companies' net income in 2001 was \$51.2 billion, 8 percent below the level of 2000.

Lower oil prices reduced the FRS companies' income from their upstream operations. In 2001, the average oil price realized by FRS producers was down nearly \$5 per barrel from 2000. Although the FRS companies' worldwide oil production was up 8 percent and gas production was up 6 percent, and their average natural gas price for the year was 11 percent higher, these developments could not offset the effects of lower oil prices. Excluding unusual items, the FRS companies' net income from worldwide upstream operations in 2001 was \$36.7 billion, a 9-percent decline from results in the prior year.

The nonenergy line of business was also a source of lower earnings. The FRS companies' businesses outside of energy did very poorly in 2001. Their chemical operations were hurt by high natural gas prices in the first half of 2001 (natural gas is a key component of many feed stocks used in the manufacture of chemicals), economic slowdowns and recession, and chronic worldwide overcapacity. As a result, the profitability of these operations hit a 20-year low. Other diversified businesses include telecommunications, non-fuel minerals, technology investments, real estate, and insurance, among others. Declines in income were widespread among the FRS companies as established nonenergy businesses were hurt by economic recession and fledgling technology ventures contributed costs but little revenue. Excluding unusual items, net income from nonenergy businesses fell from \$4.5 billion in 2000 to \$0.3 billion in 2001.

The main source of earnings growth in 2001 was U.S. petroleum refining and marketing operations. Net income from U.S. refining/marketing operations, excluding unusual items, totaled \$12.8 billion in 2001, a 48-percent increase from net income in 2000. Most of this growth in income was achieved in the first half of 2001. Colder-than-normal temperatures in the 2000 to 2001 winter added to heating oil demand and also served to drive up natural gas prices. High natural gas prices in the first half of 2001 induced electric utilities and other industrial facilities to switch fuels from natural gas to petroleum, adding to overall petroleum demand. Gasoline demand was rising into the driving season when temporary supply shortfalls hit some areas of the country, resulting in spikes in gasoline prices. As a result, the margin between refined product prices and crude oil input costs soared in the first half of 2001. Subsequently, economic recession and the attacks of September 11 cut demand for most petroleum products, leading to a squeeze on refiners' margins.

Foreign refining/marketing operations were apparently hit harder by the events of 2001 than were U.S. operations. Net income, excluding unusual items, from the FRS companies' foreign refining/marketing operations totaled \$3.2 billion in 2001, up only 6 percent.

Capital Expenditures: Mergers and Acquisitions Again Loom Large

Capital expenditures of the FRS companies totaled an all-time high of \$110.4 billion in 2001, up 1 percent from expenditures in 2000. As in 2000, mergers and acquisitions were prominent, accounting for \$46.7 billion of capital expenditures. About a third of the merger and acquisition activity in 2001, based on dollar value, involved transactions between FRS companies – the largest being Phillips Petroleum's acquisition of Tosco (\$9.4 billion) followed by Valero Energy's merger with Ultramar Diamond Shamrock (\$6.1 billion). Other multi-billion-dollar transactions clustered around acquisitions of upstream Canadian companies, mainly for their natural gas reserves, and gas-rich U.S. companies. Excluding the effects of mergers and acquisitions, the FRS companies' capital expenditures increased by 26 percent between 2000 and 2001.

Most of the increase in capital expenditures, apart from mergers and acquisitions, was for upstream exploration and development. The FRS companies' exploration and development expenditures for unproved acreage, seismic work, drilling, and production equipment, were up 35 percent in 2001 compared to expenditures in 2000. The U.S. onshore, which includes Alaska, registered the largest increase, \$6.1 billion, in expenditures. Natural gas was the favored target. The FRS companies' gas well completions onshore increased 77 percent in 2001 compared with completions in 2000, but oil well completions were up only 4 percent.

Outside the United States, Canada registered the largest increase in the FRS companies' exploration and development spending. In 2001, expenditures for Canadian prospects more than doubled, as oil well completions and gas well completions each more than doubled between 2000 and 2001.

Africa was the other region where exploration and development expenditures surged in 2001. Both sub-Saharan Africa and North Africa were areas of heightened exploration and development activity. For the FRS companies involved in sub-Saharan projects, exploration and development expenditures for Africa in 2001 totaled \$3.4 billion, about double the level of the prior year. For the seven FRS companies involved in North Africa, expenditures totaled \$0.7 billion, about 50 percent above spending in 2000.

Businesses outside of energy and chemicals (the "other nonenergy" line of business) experienced the greatest cutback in capital expenditures: from \$6.5 billion in 2000 to \$3.4 billion in 2001, a 47-percent decline. The major source of the decline was Williams Companies' spin-off of their communications business in early 2001. USX Corporation's reorganization into two companies, Marathon Oil Corporation and U.S. Steel Corporation, also contributed to the decline in expenditures in that, prior to the 2001 reporting year, USX, which contained both these corporations, was an FRS respondent. After the reorganization, only Marathon qualified as an FRS major energy company. The sharp reduction in capital expenditures for other nonenergy in 2001 is part of the long-running retrenchment in this area by the FRS companies (see "Telecommunications -- The End of the Line for Diversification?" in Chapter 4 for further discussion).

Worldwide Reserve Additions at Highest Level in at Least 28 Years

The FRS companies' worldwide additions to their oil and gas reserves from exploration and development activities, excluding reserves gained through acquisitions and mergers, totaled 7.9 billion barrels (oil equivalent) in 2001. This surpassed 1997's prior peak (over the 1974 to 2001 period of FRS data collection) of 6.8 billion barrels (oil equivalent). The 7.9 billion barrels replaced 137 percent of their worldwide oil and gas production.

In the United States, the FRS companies added 3.3 billion barrels (oil equivalent) of oil and gas to their reserves in 2001, second to 1998's 3.9 billion barrels of reserve additions. The FRS companies' U.S. oil and gas reserve additions in 2001 (excluding purchases of proven reserves) replaced 113 percent of their U.S. production.

Mergers, acquisitions, and sales of proven oil and gas reserve properties, on balance, added another 3.1 billion barrels (oil equivalent) to the FRS companies' worldwide oil and gas reserve base in 2001. All told, the FRS companies' worldwide reserve additions, from all sources, were nearly double their worldwide oil and gas production in 2001.

Recent Trends in Ownership: Survival and Turnover

A recurrent focus of the *Performance Profiles of Major Energy Producers* reports is important trends among the major energy producers as well as developments within the reporting year. Ownership of upstream and downstream assets has changed considerably in recent years. Some of the trends in ownership are reviewed in Chapter 4.

In the context of global oil production, publicly traded companies have grown in importance during the most recent decade. The share of world oil production of publicly traded companies among the world's top 20 producers has nearly doubled, from 11 percent in 1992 to 21 percent in 2001. Part of this growth is attributable to the mega-mergers of recent years. These mergers included the intra-FRS mergers of Exxon with Mobil, Chevron with Texaco, and BP with Amoco and then ARCO as well as French-based Total Petroleum's mergers with Elf Aquitaine and Petrofina. However, most of the gain was due to privatizations, either total or partial, of formerly state-owned companies. These privatizations allowed ownership through stock purchase of Russia's YUKOS and LUKoil, PetroChina (formerly, China National Petroleum), and Brazil's Petrobras.

In the United States over the same period, half of the companies constituting the top 20 in U.S. oil production and U.S. gas production in 1992 merged or were acquired by the end of 2001. In oil production, there were 12 companies that were among the top 20 in 1992 and 2001 ("survivors") and 8 that were not ("entrants"). In natural gas production there were 10 survivors and 10 entrants. Taking oil and gas together, there were, on balance, 12 survivors and 11 entrants, a turnover rate of nearly 50 percent. Although the overall production shares of the survivors increased, concentration in terms of ownership hardly changed.

In U.S. refining, most of the changes in ownership of refinery capacity occurred in the 1996 to 2001 period. In 1996, 16 FRS companies owned and operated U.S. refineries. These 16 companies accounted for 65 percent of U.S. refining capacity. In 2001, only 10 of the original 16 of 1996 FRS refining companies still owned U.S. refineries. These 10 companies accounted for 44 percent of U.S. refining capacity. What happened to the other refiners and their capacity? Four companies (Amoco, ARCO, Mobil, and Texaco) were acquired by surviving FRS refiners while Unocal divested its refining assets and Ashland committed its refineries to a joint venture in which it became a minority owner. A significant amount of the FRS refinery capacity of 1996 was sold to then small refiners, who, unlike the FRS refiners of the time, did not possess any capability to produce oil (i.e., they were not vertically integrated). This latter group of specialized refiners accounted for only 14 percent of refining capacity in 1996. However, their prominence in refining grew so rapidly that they are now considered major energy companies and became FRS respondents in 1998 ("entrants"). In 2001, this group of 10 companies (including Tosco who was acquired by FRS survivor Phillips Petroleum in 2001) accounted for 39 percent of U.S. refining capacity. The inclusion of these latter refiners into the FRS group increased the FRS companies' share of total U.S. refining capacity to 83 percent in 2001 versus 65 percent in 1996.